1   What is claimed is:

2   1.   An image enhancement method using face detection algorithms, comprising:

3   automatically detecting human faces in an image using face detection algorithms;

4   automatically locating the human faces in the image; and

5   automatically enhancing an appearance of the image based on the human faces in the

6   image.

7   2.   The method of claim 1, wherein the enhancing step includes automatically enhancing

8   lightness levels of the human faces.

9   3.   The method of claim 1, wherein the enhancing step includes automatically enhancing

10   contrast levels of the human faces.

11   4.   The method of claim 1, wherein the enhancing step includes automatically enhancing

12   color levels of the human faces.

13   5.   The method of claim 1, wherein the locating step includes automatically locating eyes in

14   the human faces.

15   6.   The method of claim 5, wherein the enhancing step comprises:

16   automatically determining if there exists a red eye artifact; and

17   reducing or removing the red eye artifact from the human faces.

18   7.   The method of claim 1, wherein the enhancing step includes using a mapping technique

19   to produce the image with target levels for a mean value or a variation value.

20   8.   An apparatus for enhancing an image using face detection algorithms, comprising:

21   a module for automatically detecting human faces in an image using face detection

22   algorithms;

23   a module for automatically locating the human faces in the image; and

24   a module for automatically enhancing an appearance of the image based on the human

25   faces in the image.

26   9.   The apparatus of claim 8, wherein the image is a digital image.

27   10.   The apparatus of claim 8, wherein the module for enhancing the appearances of the image

28   includes a module for automatically enhancing lightness levels of the human faces.

29   11.   The apparatus of claim 8, wherein the module for enhancing the appearances of the image

30   includes a module for automatically enhancing contrast levels of the human faces.

1   12.   The apparatus of claim 8, wherein the module for enhancing the appearances of the image

2   includes a module for automatically enhancing color levels of the human faces.

3   13.   The apparatus of claim 8, wherein the module for locating the human faces includes a

4   module for automatically locating eyes in the human faces.

5   14.   The apparatus of claim 13, wherein the module for enhancing the appearances of the

6   image comprises:

7   a module for automatically determining if there exists a red eye artifact; and

8   a module for reducing or removing the red eye artifact from the human faces.

9   15.   A computer readable medium comprising instructions for image enhancement using face

10   detection, the instructions comprising:

11   automatically detecting human faces in an image using face detection algorithms;

12   automatically locating the human faces in the image; and

13   automatically enhancing an appearance of the image based on the human faces in the

14   image.

15   16.   The computer readable medium of claim 15, wherein the instructions for enhancing the

16   appearance of the image include automatically enhancing lightness levels of the human faces.

17   17.   The computer readable medium of claim 15, wherein the instructions for enhancing the

18   appearance of the image include automatically enhancing contrast levels of the human faces.

19   18.   The computer readable medium of claim 15, wherein the instructions for enhancing the

20   appearance of the image includes automatically enhancing color levels of the human faces.

21   19.   The computer readable medium of claim 15, wherein the instructions for locating the

22   human faces include automatically locating eyes in the human faces.

23   20.   The computer readable medium of claim 19, wherein the instructions for enhancing the

24   appearance of the image comprises:

25   automatically determining if there exists a red eye artifact; and

26   reducing or removing the red eye artifact of the human faces.